Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of data transfer for use with a signal processor of a modem, comprising:

establishing a program code for executing a data transfer function, the function being divided into phases by inactivity intervals ~~during which the data transfer function is suspended~~, and the program code including code segments respectively associated with the phases; and

downloading each code segment to a first memory of the processor prior to commencement of the respective phase for execution thereof, each code segment being downloaded during one of the inactivity intervals prior to the commencement of the respective phase.

2. (Original) A method as claimed in claim 1, wherein each successively downloaded segment overwrites a previously downloaded segment.

3. (Previously presented) A method as claimed in claim 1, wherein the data transfer function is a modem modulation function.

4. (Previously presented) A method as claimed in claim 1, wherein the program code is held in a second memory, external of the signal processor.

5. (Previously presented) A method as claimed in claim 1, wherein the signal processor is in the form of a Datapump.

6. (Previously Presented) A modem architecture comprising:

a signal processor with an internal first memory;

a second memory external of the signal processor, wherein the second memory is arranged to hold a program code divided into code segments, for executing phases of a modulation function with inactivity intervals therebetween and the first memory is configured to sequentially receive the segments downloaded from the second memory to a current segment portion of the first memory for executing same;

wherein the signal processor is programmed to establish a program code for executing a data transfer function, the function being divided into phases by inactivity intervals, and the program code including code segments associated with each phase; and download each code segment to the first memory of the signal processor prior to commencement of the respective phase for execution thereof, each code segment being downloaded only during an associated inactivity interval.

7. (Original) A modem architecture as claimed in claim 6, wherein the signal processor is a Datapump and the first memory is provided as on-chip RAM of the Datapump.

8. (Previously Presented) A method of data transfer for use with a signal processor, comprising:

establishing a program code for executing a data transfer function, the function being divided into phases by inactivity intervals, and the program code including code segments associated with each phase; and

downloading each code segment to a first memory of the processor prior to commencement of the respective phase for execution thereof, wherein each successively downloaded segment overwrites a previously downloaded segment, and wherein the program code is downloaded from a second memory, external to the signal processor.

9. (Previously Presented) The method of claim 8, wherein the data transfer function is a modem modulation function.

10. (Canceled)

11. (Previously Presented) The method of claim 8, wherein the signal processor is a Datapump.

12. (Previously Presented) The method of claim 8, further comprising downloading from the second memory to the first memory an event arbiter segment prior to downloading any segments of the program code, the event arbiter segment providing programming that causes the signal processor to detect when each inactivity interval begins.

13. (Previously Presented) The method of claim 12, further comprising downloading from the second memory to the first memory a downloader segment prior to downloading any segments of the program code, the downloader segment providing programming that causes the signal processor to download one of the code segments in response to detecting the beginning of one of the inactivity intervals.

14. (Previously Presented) A method of data transfer for use with a signal processor of a modem, comprising:

establishing a program code for executing a data transfer function, the function being divided into phases by inactivity intervals, and the program code including code segments associated with each phase; and

downloading each code segment to a first memory of the processor from a second memory, external to the processor, prior to commencement of the respective phase for execution thereof, each code segment being downloaded during an associated inactivity interval.

15. (Previously Presented) The method of claim 14, wherein the signal processor is a Datapump and the first memory is provided as on-chip RAM of the Datapump.

16. (Previously Presented) The method of claim 14, wherein the data transfer function is a modem modulation function.

17. (New) The method of claim 14, further comprising:

downloading a downloader segment from the second memory to the first memory, wherein the step of downloading each code segment includes using the downloaded downloader to download each code segment.

18. (New) The method of claim 1, further comprising:

downloading a downloader segment from an external second memory to the first memory, wherein the step of downloading each code segment includes using the downloaded downloader to download each code segment.

19. (New) A modem architecture as claimed in claim 6, wherein the signal processor is structured to download a downloader segment from the second memory to the first memory and the downloaded downloader is structured to download the program code segments.

20. (New) The method of claim 8, further comprising:

downloading a downloader segment from the second memory to the first memory, wherein the step of downloading each code segment includes using the downloaded downloader to download each code segment.